### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization International Bureau



## - 1 (1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 | 1881 |

# (43) International Publication Date 21 May 2004 (21.05.2004)

#### **PCT**

# (10) International Publication Number WO 2004/042346 A2

(51) International Patent Classification7:

**G01N** 

(21) International Application Number:

PCT/US2003/012946

(22) International Filing Date: 24 April 2003 (24.04.2003)

(25) Filing Language:

English

(26) Publication Language:

**English** 

(30) Priority Data:

10/131,831 10/325,899 24 April 2002 (24.04.2002) US

20 December 2002 (20.12.2002) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US Filed on Not furnished (CIP) Not furnished

(71) Applicant (for all designated States except US): EXPRES-SION DIAGNOSTICS, INC. [US/US]; 384 Oyster Point Boulevard, Suite 6, South San Francisco, CA 94080 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): WOHLGEMUTH, Jay [US/US]; 1165 Monte Rosa Drive, Menlo Park, CA 94025 (US). FRY, Kirk [US/US]; 2604 Ross Road, Palo Alto, CA 94303 (US). WOODWARD, Robert [US/US]; 1828 Rheem Court, Pleasanton, CA 94558 (US). LY, Ngoc [US/US]; 2000 Crystal Springs Road 15-14, San Bruno, CA 94066 (US). PRENTICE, James [US/US]; 14 Niles Road, Austin, TX 78703 (US). MORRIS, MacDonald [US/US]; 34 Lloyden Drive, Atherton, CA 94027 (US). ROSENBERG, Steven [US/US]; 2323 Bywood Drive, Oakland, CA 94682 (US).

(74) Agents: WARD, Michael, R. et al.; Morrison & Foerster LLP, 425 Market Street, San Francisco, CA 94105-2482 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

4/042346 A2 ||

(54) Title: METHODS AND COMPOSITIONS FOR DIAGNOSING AND MONITORING TRANSPLANT REJECTION

(57) Abstract: Methods of diagnosing or monitoring transplant rejection, particularly cardiac transplant rejection, in a patient by detecting the expression level of one or more genes in a patient, are described. Diagnostic oligonucleotides for diagnosing or monitoring transplant rejection, particularly cardiac transplant rejection and kits or systems containing the same are also described.